

Practice 1-2

Points, Lines, and Planes

Refer to the diagram at the right for Exercises 1–15.

- 1. Name  $\overleftrightarrow{AB}$  in another way.
- 2. Give two other names for plane  $Q$ .
- 3. Why is  $EBD$  not an acceptable name for plane  $Q$ ?

Are the following sets of points collinear?

- 4.  $\overleftrightarrow{AB}$  and  $C$
- 5.  $B$  and  $F$
- 6.  $\overleftrightarrow{EB}$  and  $A$
- 7.  $F$  and plane  $Q$

Are the following sets of points coplanar?

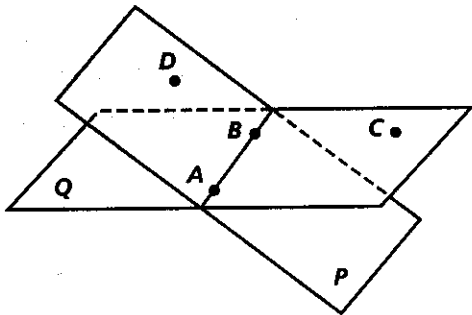
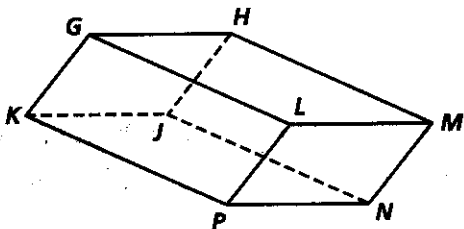
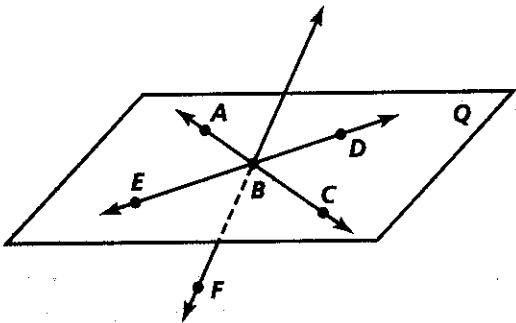
- 8.  $E$ ,  $B$ , and  $F$
- 9.  $\overleftrightarrow{DB}$  and  $\overleftrightarrow{FC}$
- 10.  $\overleftrightarrow{AC}$  and  $\overleftrightarrow{ED}$
- 11.  $\overleftrightarrow{AE}$  and  $\overleftrightarrow{DC}$
- 12.  $F$ ,  $A$ ,  $B$ , and  $C$
- 13.  $F$ ,  $A$ ,  $B$ , and  $D$
- 14. plane  $Q$  and  $\overleftrightarrow{EC}$
- 15.  $\overleftrightarrow{FB}$  and  $\overleftrightarrow{BD}$

Find the intersection of the following lines and planes in the figure at the right.

- 16.  $\overleftrightarrow{GK}$  and  $\overleftrightarrow{LG}$
- 17. planes  $GLM$  and  $LPN$
- 18. planes  $GHPN$  and  $KJP$
- 19. planes  $HJN$  and  $GKL$
- 20.  $\overleftrightarrow{KP}$  and plane  $KJN$
- 21.  $\overleftrightarrow{KM}$  and plane  $GHL$

Refer to the diagram at the right.

- 22. Name plane  $P$  in another way.
- 23. Name plane  $Q$  in another way.
- 24. What is the intersection of planes  $P$  and  $Q$ ?
- 25. Are  $A$  and  $C$  collinear?
- 26. Are  $D$ ,  $A$ ,  $B$ , and  $C$  coplanar?
- 27. Are  $D$  and  $C$  collinear?
- 28. What is the intersection of  $\overleftrightarrow{AB}$  and  $\overleftrightarrow{DC}$ ?
- 29. Are planes  $P$  and  $Q$  coplanar?
- 30. Are  $\overleftrightarrow{AB}$  and plane  $Q$  coplanar?
- 31. Are  $B$  and  $C$  collinear?



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